

CLAIMS

1. A citrullinated polypeptide derived from all or part of the sequence of the α -chain or of the β -chain of a vertebrate fibrin, by substitution of at least one arginine residue with a citrulline residue.
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2. The citrullinated polypeptide as claimed in claim 1, derived from a sequence of at least 5 consecutive amino acids of the α -chain or of the β -chain of a vertebrate fibrin.
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3. ¹⁵ *Purta 1/14* The citrullinated polypeptide as claimed in either of claims 1 and 2, characterized in that said vertebrate fibrin is a mammalian fibrin, preferably a human fibrin.
4. The use of a polypeptide as claimed in any one of claims 1 to 3, for diagnosing rheumatoid arthritis, *in vitro*.
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5. An antigenic composition for diagnosing the presence of rheumatoid arthritis-specific autoantibodies in a biological sample, characterized in that it contains at least one citrullinated polypeptide as claimed in any one of claims 1 to 3, optionally labeled with and/or conjugated to a carrier molecule.
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6. A method for detecting rheumatoid arthritis-specific autoantibodies in a biological sample, which method is characterized in that it comprises:
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- 35 - bringing said biological sample into contact with at least one polypeptide as claimed in any one of claims 1 to 3, under conditions which allow

- 2AA 1
- the formation of an antigen/antibody complex with the rheumatoid arthritis-specific autoantibodies possibly present;
- detecting, by any suitable means, the antigen/antibody complex possibly formed.
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7. A kit for detecting rheumatoid arthritis-specific autoantibodies in a biological sample, characterized in that it comprises at least one polypeptide as claimed in any one of claims 1 to 3, and also buffers and reagents suitable for constituting a reaction medium which allows the formation of an antigen/antibody complex, and/or means for detecting said antigen/antibody complex.
- 10 AA
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8. The use of a citrullinated polypeptide as claimed in any one of claims 1 to 3, for producing a medicinal product.
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9. The use as claimed in claim 8, characterized in that said medicinal product is intended to neutralize the autoimmune response associated with RA.
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10. A pharmaceutical composition, characterized in that it contains, as active principle, at least one citrullinated polypeptide as claimed in any one of claims 1 to 3.